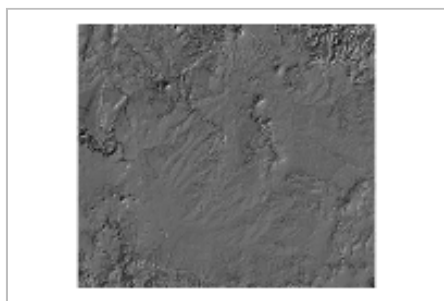


Shaded Relief Image for the Navajo Nation



Data format: Raster Dataset - ERDAS IMAGINE

File or table name: NN_Shaded_Relief.img

Coordinate system: Universal Transverse Mercator

Theme keywords: Shaded-Relief Image

Abstract: Shaded-relief image derived from the 1 arc-second (approximately 30-meter) National Elevation Dataset (NED) for the Navajo Nation.

FGDC and ESRI Metadata:

- [Identification Information](#)
- [Data Quality Information](#)
- [Spatial Data Organization Information](#)
- [Spatial Reference Information](#)
- [Entity and Attribute Information](#)
- [Distribution Information](#)
- [Metadata Reference Information](#)
- [Binary Enclosures](#)

Metadata elements shown with blue text are defined in the Federal Geographic Data Committee's (FGDC) [Content Standard for Digital Geospatial Metadata \(CSDGM\)](#). Elements shown with green text are defined in the [ESRI Profile of the CSDGM](#). Elements shown with a green asterisk (*) will be automatically updated by ArcCatalog. ArcCatalog adds hints indicating which FGDC elements are mandatory; these are shown with gray text.

Identification Information:

Citation:

Citation information:

Originators: U.S. Geological Survey (USGS), EROS Data Center

Title:

Shaded Relief Image for the Navajo Nation

***File or table name:** NN_Shaded_Relief.img

Publication date: 1999

Edition: 1

***Geospatial data presentation form:** remote-sensing image

Publication information:

Publication place: Sioux Falls, SD

Publisher: U.S. Geological Survey

***Online linkage:**

[\\Terra_dc\Navajo\NAUM_NN_Summary\DB\Topo\NN_Shaded_Relief.img](#)

Description:**Abstract:**

Shaded-relief image derived from the 1 arc-second (approximately 30-meter) National Elevation Dataset (NED) for the Navajo Nation.

Purpose:

This dataset was developed to support the U.S. Environmental Protection Agency (USEPA) in its undertaking of an extensive scientific study to determine if abandoned uranium mines (AUM) and related mine features pose a significant risk to human health and the environment, and to identify areas requiring action to reduce risk for the Navajo Nation.

Language of dataset:** en**Time period of content:*Time period information:****Single date/time:**

Calendar date: December 2005

Currentness reference:

publication date

Status:

Progress: Complete

Maintenance and update frequency: None planned

Spatial domain:**Bounding coordinates:**

***West bounding coordinate:** -112.536459

***East bounding coordinate:** -106.963681

***North bounding coordinate:** 37.947725

***South bounding coordinate:** 33.978981

Local bounding coordinates:

***Left bounding coordinate:** 364985.000000

***Right bounding coordinate:** 855035.000000

***Top bounding coordinate:** 4200015.000000

***Bottom bounding coordinate:** 3766485.000000

Keywords:**Theme:**

Theme keywords: Shaded-Relief Image

Theme keyword thesaurus: None

Place:

Place keywords: Navajo Nation, Arizona, Colorado, New Mexico, Utah, United States

Place keyword thesaurus: None

Access constraints: None**Use constraints:**

This shaded-relief image derived from 1 arc-second (approximately 30-meter) NED data for the Navajo Nation.

Use of this data generally requires computer workstations with ESRI's Arc/Info (8.x or above), ArcGIS (8.x or above), or ArcView (3.x), or some other GIS or CAD software that is capable of reading or converting this dataset.

The data are provided "as-is," without warranty of any kind, either express or implied.

These data have been compiled as part of a desktop project to collect existing spatial data to support the study of Navajo abandoned uranium mines. No field verifications were undertaken as part of this desktop study.

Point of contact:

Contact information:

Contact organization primary:

Contact organization: U. S. Environmental Protection Agency, Region 9, Superfund Program

Contact address:

Address type: mailing and physical address

Address:

75 Hawthorne St (SFD 8-2)

City: San Francisco

State or province: CA

Postal code: 94105

Country: USA

Contact voice telephone: 415-972-3167

Security information:

Security classification system: None

***Native dataset format:** Raster Dataset

***Native data set environment:**

Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.1.0.780

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Data Quality Information:

Attribute accuracy:

Attribute accuracy report:

Based upon the accuracy of the source NED data.

See the following from USGS:

Accuracy of the National Elevation Dataset

A plan for assessing the overall accuracy of the National Elevation Dataset (NED) based on independent high-accuracy geodetic control is currently under development. The accuracy described will be in the terms used in the FGDC Content Standards for Framework Land Elevation Data . Accuracy will be determined and reported using the methodology specified in the FGDC National Standard for Spatial Data Accuracy .

Until an independent overall assessment of the accuracy of NED is completed, it is best to refer to published information on the accuracy of the source digital elevation models

(DEM's) from which NED was assembled. The primary source data were the USGS 7.5-minute (30-meter or 10-meter resolution) DEM's. Gaps in the 7.5-minute DEM coverage were filled with data from USGS 30-minute (2-arc-second resolution) or 1-degree (3-arc-second resolution) DEM's. The USGS Data Users Guide 5 for DEM's (traditionally known as the "blue book"), last published in 1993, contains a general discussion of DEM accuracy and a brief description of the accuracy testing methodology. The DEM data users guide also describes the classification levels of standard USGS DEM products. The level of a DEM is defined, in part, on the basis of its accuracy. In general, the accuracy is only as good as the source data.

Logical consistency report:

None provided by the data provider.

Completeness report:

This shaded-relief image derived from 1 arc-second (approximately 30-meter) NED data for the Navajo Nation.

Positional accuracy:

Horizontal positional accuracy:

Horizontal positional accuracy report:

Based upon the accuracy of the source NED data.

See the following from USGS:

Accuracy of the National Elevation Dataset

A plan for assessing the overall accuracy of the National Elevation Dataset (NED) based on independent high-accuracy geodetic control is currently under development. The accuracy described will be in the terms used in the FGDC Content Standards for Framework Land Elevation Data . Accuracy will be determined and reported using the methodology specified in the FGDC National Standard for Spatial Data Accuracy .

Until an independent overall assessment of the accuracy of NED is completed, it is best to refer to published information on the accuracy of the source digital elevation models (DEM's) from which NED was assembled. The primary source data were the USGS 7.5-minute (30-meter or 10-meter resolution) DEM's. Gaps in the 7.5-minute DEM coverage were filled with data from USGS 30-minute (2-arc-second resolution) or 1-degree (3-arc-second resolution) DEM's. The USGS Data Users Guide 5 for DEM's (traditionally known as the "blue book"), last published in 1993, contains a general discussion of DEM accuracy and a brief description of the accuracy testing methodology. The DEM data users guide also describes the classification levels of standard USGS DEM products. The level of a DEM is defined, in part, on the basis of its accuracy. In general, the accuracy is only as good as the source data.

Lineage:

Source information:

Source citation:

Citation information:

Originators: US Geological Survey

Title:

National Elevation Data (NED)

Publication date: 1999

Publication time: Unknown

Source scale denominator: 1 arc-second

Type of source media: Arc/Info GRID

Source citation abbreviation:

NED

Source contribution:

Sole source of primary elevation data

Source time period of content:

Time period information:

Single date/time:

Calendar date: 1999

Source currentness reference:

publication date

Process step:

Process description:

NED data was converted to UTM, Zone 12, NAD83, meters in ERDAS Image 8.7 IMG format 16bit unsigned. This data was then processed via the shaded relief function, with the following parameters:

Solar Azimuth - 125°

Solar Elevation - 45°

Ambient Light - 0.00

DEM scale - 2.0

Elevation units - meters

Process software and version: ERDAS Imagine 8.7

Process date: December 2005

Source used citation abbreviation:

NED

Process contact:

Contact information:

Contact organization primary:

Contact organization: TerraSpectra Geomatics

Contact address:

Address type: mailing and physical address

Address:

2700 E Sunset Dr, Ste A-10

City: Las Vegas

State or province: NV

Postal code: 89120

Country: USA

Contact voice telephone: 702-795-8254

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Spatial Data Organization Information:

***Direct spatial reference method:** Raster

Raster object information:

***Image format:** ERDAS IMAGINE

***Number of bands:** 1

***Row count:** 14451

***Column count:** 16335

***Vertical count:** 1

***Cell size X direction:** 30.000000

***Cell size Y direction:** 30.000000

***Bits per pixel:** 32

***Pyramid layers:** TRUE

***Image colormap:** FALSE

***Compression type:** None

***Raster object type:** Pixel

***Raster display type:** pixel RGB

***Raster origin:** Upper Left

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Spatial Reference Information:

Horizontal coordinate system definition:

Coordinate system name:

***Projected coordinate system name:** NAD_1983_UTM_Zone_12N

***Geographic coordinate system name:** GCS_North_American_1983

Planar:

Grid coordinate system:

***Grid coordinate system name:** Universal Transverse Mercator

Universal Transverse Mercator:

***UTM zone number:** 12

Transverse mercator:

***Scale factor at central meridian:** 0.999600

***Longitude of central meridian:** -111.000000

***Latitude of projection origin:** 0.000000

***False easting:** 500000.000000

***False northing:** 0.000000

Planar coordinate information:

***Planar coordinate encoding method:** row and column

Coordinate representation:

***Abscissa resolution:** 30.000000

***Ordinate resolution:** 30.000000

***Planar distance units:** meters

Geodetic model:

***Horizontal datum name:** North American Datum of 1983

***Ellipsoid name:** Geodetic Reference System 80

- ***Semi-major axis:** 6378137.000000
- ***Denominator of flattening ratio:** 298.257222

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Entity and Attribute Information:

Detailed description:

***Name:** Layer_1

Entity type:

- ***Entity type label:** Layer_1
- ***Entity type type:** Table
- ***Entity type count:** 89

Attribute:

- ***Attribute label:** ObjectID
- ***Attribute alias:** ObjectID
- ***Attribute definition:**
Internal feature number.
- ***Attribute definition source:**
ESRI

- ***Attribute type:** OID
- ***Attribute width:** 4
- ***Attribute precision:** 0
- ***Attribute scale:** 0

Attribute domain values:

- ***Unrepresentable domain:**
Sequential unique whole numbers that are automatically generated.

Attribute:

- ***Attribute label:** Value
- ***Attribute alias:** Value
- ***Attribute type:** Integer
- ***Attribute width:** 0
- ***Attribute precision:** 0
- ***Attribute scale:** 0

Attribute:

- ***Attribute label:** Count
- ***Attribute alias:** Count
- ***Attribute type:** Double
- ***Attribute width:** 0
- ***Attribute precision:** 0
- ***Attribute scale:** 0

Attribute:

- ***Attribute label:** Red
- ***Attribute alias:** Red

***Attribute type:** Double
 ***Attribute width:** 0
 ***Attribute precision:** 0
 ***Attribute scale:** 0

Attribute:

***Attribute label:** Green
 ***Attribute alias:** Green

***Attribute type:** Double
 ***Attribute width:** 0
 ***Attribute precision:** 0
 ***Attribute scale:** 0

Attribute:

***Attribute label:** Blue
 ***Attribute alias:** Blue

***Attribute type:** Double
 ***Attribute width:** 0
 ***Attribute precision:** 0
 ***Attribute scale:** 0

Attribute:

***Attribute label:** Opacity
 ***Attribute alias:** Opacity

***Attribute type:** Double
 ***Attribute width:** 0
 ***Attribute precision:** 0
 ***Attribute scale:** 0

Overview description:

Entity and attribute overview:

Shaded Relief ERDAS Imagine Image with pixel values modeled to represent brightness (reflected sunlight) for sunlit and shaded areas of a modeled topographic surface.

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Distribution Information:

Distributor:

Contact information:

Contact organization primary:

Contact organization: U. S. Environmental Protection Agency, Region 9,
 Superfund Records Center

Contact address:

Address type: mailing and physical address

Address:

95 Hawthorne St (SFD-7C)

City: San Francisco

State or province: CA

Postal code: 94105

Country: USA

Contact voice telephone: 415-536-2033

Resource description: National Elevation Dataset (NED)

Distribution liability:

Although these data have been processed successfully on a computer system for the US EPA, no warranty expressed or implied is made by the US EPA or its contractors regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. No responsibility is assumed by US EPA or its contractors in the use of these data.

Standard order process:

Digital form:

Digital transfer information:

***Transfer size:** 0.000

***Dataset size:** 0.000

Custom order process:

Contact the US EPA for a custom order.

Technical prerequisites:

Use of this data generally requires computer workstations with ESRI's Arc/Info (7.x or above), ArcGIS (8.x or above), or ArcView (3.x or 8.x), or some other GIS or CAD software that is capable of reading or converting this dataset.

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Metadata Reference Information:

***Metadata date:** 20070803

***Language of metadata:** en

Metadata contact:

Contact information:

Contact person primary:

Contact person: Andrew Bain

Contact organization: U. S. Environmental Protection Agency, Region 9, Superfund Program

Contact position: Project Manager

Contact address:

Address type: mailing and physical address

Address:

75 Hawthorne St (SFD 8-2)

City: San Francisco

State or province: CA

Postal code: 94105

Country: USA

Contact voice telephone: 415-972-3167

***Metadata standard name:** FGDC Content Standards for Digital Geospatial Metadata

***Metadata standard version:** FGDC-STD-001-1998

***Metadata time convention:** local time

Metadata security information:

Metadata security classification system: None

Metadata extensions:

***Online linkage:** <http://www.esri.com/metadata/esriprof80.html>

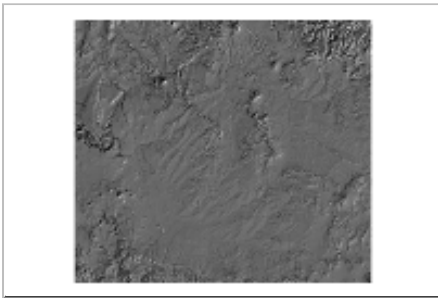
***Profile name:** ESRI Metadata Profile

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Binary Enclosures:

Thumbnail:

Enclosure type: Picture



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